

Claims

1. An endoscopic mouthguard comprising:

a bite block comprising a generally annular body adapted to be inserted into the mouth of a patient so as to maintain the upper and lower teeth of the patient in a spaced apart relationship and define an endoscopic passage for introduction of an endoscope into the oral cavity of the patient, the bite block including a gas delivery passage for delivery of a gas to the oral cavity of the patient; and

a gas distribution manifold detachably engaged with said bite block, the gas distribution manifold comprising:

at least one inlet port for receiving gas from a gas supply;

at least one nasal outlet port in fluid communication with the inlet port and adapted so as to direct gas to or toward the nasal passages of the patient; and

an oral outlet port in fluid communication with the inlet port and configured such that when the gas distribution manifold is engaged with the bite block the oral outlet port is in fluid communication with the gas delivery passage,

and when the gas distribution manifold is disengaged from the bite block and the bite block is removed from the mouth of the patient the oral outlet port is adapted to direct gas over or toward the mouth of the patient.

2. An endoscopic mouthguard according to claim 1, wherein the at least one nasal port comprises a pair of apertures arranged such that gas flowing from said apertures is directed toward the patient's nostrils from a position below the nose of the patient.

3. An endoscopic mouthguard according to claim 1, wherein the gas distribution manifold further includes a pair of tubular portions each adapted to extend at least partly into each nostril of the patient and defining two nasal outlet ports.

4. An endoscopic mouthguard according to claim 1, wherein the at least one nasal port comprises a single elongate aperture, the single elongate aperture extending laterally to the patient in use such that gas is delivered to both nostrils of the patient.

5. An endoscopic mouthguard according to any one of the preceding claims, wherein the oral outlet port is a generally elongate aperture extending laterally relative to the patient in use.

6. An endoscopic mouthguard according to any one of the preceding claims, wherein the gas distribution manifold is detachably engaged with the bite block by at least one frangible portion extending between the bite block and the gas distribution manifold.

7. An endoscopic mouthguard according to any one of claims 1 to 5, wherein the bite block and the gas distribution manifold each further include respective cooperating engagement means configured such that the gas distribution manifold is detachably and attachably engageable with the bite block.

8. An endoscopic mouthguard according to claim 7, wherein the respective cooperating engagement means comprise compliant interlocking formations integrally formed with the gas distribution manifold and the bite block.

9. An endoscopic mouthguard according to any one of the preceding claims, wherein the gas delivery passage comprises a first portion which is integrally formed with the annular body and defines a gas flow passage between the oral cavity and a front region of the annular body, and a second portion which provides a connection between the oral outlet port and the first portion, said second portion having a distal end adapted to engage with the oral outlet port to provide gas communication between the oral outlet port and the gas delivery passage.

10. An endoscopic mouthguard according to claim 9, wherein the gas delivery passage is of slot shape in cross-section with the longitudinal axis of the slot shape extending transverse to the axis of the annular body.

11. An endoscopic passage according to any one of the preceding claims, wherein the gas delivery passage is integrally formed with the annular body and arranged such that when in use, the gas delivery passage is positioned superiorly to the endoscopic passage.

12. An endoscopic mouthguard according to any one of the preceding claims, wherein the gas delivery passage terminates in a rearward facing opening which is arranged so as to deliver gas toward the rear of the oral cavity.
- 5 13. An endoscopic mouthguard according to any one of the preceding claims, wherein the gas distribution manifold further includes a tubular connector extending from the inlet port, said connector having a distal end engageable with a gas supply conduit.
- 10 14. An endoscopic mouthguard according to any one of the preceding claims further including at least one obturator engagement formation integrally formed with the bite block, wherein the at least one obturator engagement formation provides an attachment point for an obturator member, the obturator member adapted to be used for depressing a patient's tongue to thereby provide improved access to the pharynx of the patient.
- 15 15. An endoscopic mouthguard according to any one of the preceding claims wherein the endoscopic passage has a diameter of at least 20 mm so as to allow the passage of a 60Fr dilator therethrough.
- 16 16. An endoscopic mouthguard according to any one of the preceding claims wherein an outer surface of the annular body includes a contact portion adapted to be engaged by the teeth of the patient when the annular body is operatively positioned within the mouth of the patient.
- 20 17. An endoscopic mouthguard according to claim 16, wherein a cushioning member is affixed to the contact portion so as to distribute the load imparted to the bite block by the patient's teeth.
- 25 18. An endoscopic mouthguard according to any one of the preceding claims, wherein the bite block includes an outer peripheral flange adapted to overlies the lips of the patient.
19. An endoscopic mouthguard according to any one of the preceding claims, wherein the bite block and the gas distribution manifold are formed from a resilient polymeric material.

20. An endoscopic mouthguard according to any one of the preceding claims, wherein the gas distribution manifold further includes an attachment means for securing the gas distribution manifold to the patient.

21. A gas distribution manifold for providing a gas to a patient, the gas
5 distribution manifold comprising:

at least one inlet port for receiving a gas from a gas supply;

at least one nasal outlet port in fluid communication with the inlet port and adapted to direct gas to the nasal passages of the patient; and

an oral outlet port in fluid communication with the inlet port and adapted to direct
10 gas over or toward the mouth of the patient.

22. A gas distribution manifold according to claim 21, wherein the gas distribution manifold is detachably engageable with an oxygenating bite block having a gas delivery passage, such that when attached to the bite block, the oral outlet port is in fluid communication with the gas delivery passage so as to deliver gas to the oral cavity
15 of the patient.

23. A method of delivering a gas to the nasal passages and the mouth of a patient, wherein the gas is delivered to the nasal passages from below the nose and over or toward the mouth from above the mouth of the patient from a gas distribution manifold;

20 wherein the gas distribution manifold comprises:

at least one inlet port for receiving gas from a gas supply;

at least one nasal outlet port in fluid communication with the inlet port and adapted to direct gas to or toward the nasal passages of the patient; and

an oral outlet port in fluid communication with the inlet port and configured to
25 direct gas over or toward the mouth of the patient.

24. A method of delivering a gas to the nasal passages and the mouth of a patient according to claim 23, wherein the gas is delivered to the patient during recovery from anaesthesia.

25. A method of delivering a gas to the nasal passages and the mouth of a patient according to claim 23 or claim 24, wherein the gas is an oxygen rich gas.

26. An endoscopic mouthguard substantially as herein described with reference to the accompanying drawings.

5 27. A gas distribution manifold for providing a gas to a patient, substantially as herein described with reference to the accompanying drawings.

28. A method of delivering a gas to the nasal passages and the mouth of a patient, substantially as herein described with reference to the accompanying drawings.